

SUPPORT FOR THE AMENDMENTS

This Amendment amends the title; cancels withdrawn Claims 30-48; amends Claims 1-2, 4-5, 13-14, 21-22 and 26-28, and adds new Claims 49-53. Support for the amendments is found in the specification and claims as originally filed. In particular, support for Claims 1 and 21 is found in Claims 2 and 22, respectively. Support for Claim 27 is found in Claims 18 and 23, and in the specification at least at page 12, line 5. Support for new Claim 49 is found in Claim 4. Support for new Claim 50 is found in Claims 1 and 18. Support for new Claim 51 is found in Claims 21 and 23. Support for new Claim 52 is found in Claims 1 and 16. Support for new Claim 53 is found in Claims 1 and 13. No new matter would be introduced by entry of these amendments.

Upon entry of these amendments, Claims 1-29 and 49-53 will be pending in this application. Claims 1, 21, 27, 50, 51, 52 and 53 are independent.

REQUEST FOR RECONSIDERATION

Applicants respectfully request entry of the foregoing and reexamination and reconsideration of the application, as amended, in light of the remarks that follow.

Applicants thank the Examiner for the courtesies extended to their representative during the interview on May 17, 2007.

As discussed during the interview, the present invention provides a method of treating a dielectric film in order to perform at least one of healing, sealing and cleansing the dielectric film. Specification at [0001].

Claims 1-10, 13, 15-19, 21-24 and 26-29 are rejected under 35 U.S.C. §102(b) over U.S. Patent Application Publication No. US 2001/0019857 A1 ("Yokoyama"). In addition, Claims 11-12, 14, 20 and 25 are rejected under 35 U.S.C. §103(a) over Yokoyama in view of U.S. Patent No. 6,875,709 ("Lin") and U.S. Patent No. 6,670,717 ("Kane").

Yokoyama discloses a process for producing a semiconductor device in which a HSQ film 38 is applied to a first plasma TEOS oxide film 37, and the resultant is thermally treated on a hot plate of about 200°C, and then is sintered at about 400°C. Then a second plasma TEOS oxide film 39 is formed on the HSQ film 38. Photoresist is patterned on the second plasma TEOS oxide film 39 and the films 37, 38 and 39 are patterned by fluorocarbon-based gas. Next the HSQ film 38 is exposed to hexamethyldisilaxane. Yokoyama at [0060]-[0064].

However, Yokoyama fails to suggest the independent Claim 1 limitation of "exposing said at least one surface of said dielectric film to a chlorine containing material" or the independent Claim 21 limitation of "exposing a side wall of said feature in said dielectric film to a treating compound, wherein said treating compound comprises ... a Cl-containing material". Furthermore, Yokoyama fails to suggest the independent Claim 27 limitation of "exposing said dielectric film at a temperature ranging from 50C to 400C to a treating compound".

Lin and Kane fail to remedy the deficiencies of Yokoyama. The Office Action at page 8, lines 14-17, cites Lin and Kane because Yokoyama "does not teach dielectric film comprising silicon, carbon and oxygen, introducing the C_xH_y containing material within supercritical carbon dioxide, exposing the surface of the dielectric film to a second C_xH_y containing material comprises exposing the dielectric film to TMCTS or OMCTS".

Because the cited prior art fails to suggest all the limitations of independent Claims 1, 21 and 27, the prior art rejections should be withdrawn.

The title of the invention is objected to as not being descriptive. To obviate the rejection, the title is amended.

Claims 1-29 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting over Claims 1-25 of copending U.S. Application No. 11/060,352.

Pursuant to MPEP § 822.01, because the provisional double patenting rejection is the only rejection remaining in the above-identified application, Applicants respectfully request that the provisional rejection be withdrawn.

In view of the foregoing amendments and remarks, Applicants respectfully submit that the application is in condition for allowance. Applicants respectfully request favorable consideration and prompt allowance of the application.

Should the Examiner believe that anything further is necessary in order to place the application in even better condition for allowance, the Examiner is invited to contact Applicants' undersigned attorney at the telephone number listed below.

Respectfully submitted,

Customer Number
22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 03/06)

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.
Norman F. Oblon



Corwin P. Umbach, Ph.D.
Registration No. 40,211